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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/001,719	11/02/2001	Nigel C. Paver	INTL-0650-US (P12391)	3525

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TROP PRUNER & HU, PC
8554 KATY FREEWAY
SUITE 100
HOUSTON, TX 77024

EXAMINER

PAN, DANIEL H

ART UNIT PAPER NUMBER

2183

DATE MAILED: 03/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/001,719	PAVER, NIGEL C.	
	Examiner	Art Unit	
	Daniel Pan	2183	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,6,7,9,12,13,15-17,19,22-24,26,28,29,31 and 33-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,6,7,9,12,13,15-17,19,22-24,26,28,29,31 and 33-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. Claims 1, 3, 6, 7, 9, 12, 13, 15, 16, 17, 19, 22, 23, 24, 26, 28, 31, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45 remain for examination. Claims 2, 4, 5, 8, 10, 11, 14, 18, 20, 21, 25, 27, 29, 30, 32 have been canceled.

2. Claims 1, 7, 13 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The reasons are given below.

3. The rejection under "101" applied in the last Office action has been maintained. However, in view of the In Ex parte Lundgren, Appeal NO. 2003-2088, the reasoning of the technological art has been withdrawn. Additional comments will follow. Since this is also based on recent 101 Guidelines and training, this is a non-final in order to allow applicant to respond. This action also includes response to applicant's remarks in order to clarify the prior art teaching of Carnevale.

4. As to claim 1, no physical transformation can be determined in the claim. Although claim recites "computer implemented", this is not found persuasive. The claim is nothing more than an abstract idea which is a machine implemented and such claim is not statutory (see Benson, 409 U.S. 63, 175 USPQ 673). The determination of the update of the register is nothing more than just the data transformation. Furthermore, no specific and substantial practical application can be found in the claim. Therefore, it is not useful. The claim is not tangible because it is merely determining the update of the register and providing indication. Furthermore, the claim is not concrete because no

predictable result can be found. The setting of indicator bit could also be set if the register were not updated. Therefore, it is not concrete. The steps of determining, updating, and setting have no substantial practical application.

5. Similarly, as to claim 7, although claim 7, additionally recites the medium storing machine readable instructions that when executed enable the processor "...", it is read as the steps or features taken to achieve a result that is useful, tangible, and concrete, not the final result achieved which is useful, tangible, and concrete (see published Interim 101 Guidelines at www.uspto.gov). No substantial practical application can be found in claim 7. One might ask what is the practical application for determining the update and indicating the update?

6. As to claim 13, claim 13 additionally recites a storage storing instructions executed by processor to determine the update and to indicate the update. However, the executed instructions do not create substantial functional and structural relation between the processor and the instructions which permit the processor functionalities to be realized. For example, the details of the executed instructions in relation to the updating is not clear. Therefore, it raised a doubt whether applicant is seeking the protection for the executed instructions in the processor or the determination of the data updating and indication. Suggestion, more details of the executed instructs with respect to the updating and indication would be helpful.

7. Language such as "Instructions stored in a computer readable memory ...defined or operated structural and functional interrelationships between the

instructions and the rest of the computer...", would be helpful to overcome the "101".
(see *In re Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035).

8. Claims 1,7,13 are rejected under 35 U.S.C. 102(b) as being anticipated by Carnevale et al. (5,471,626).

9. Claims 1,3,6, 7,9, 12,13,15-17, 19,22-24,26,28,31,33, 36,38,40,41, 44,45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buchholz (4,740,893) in view of Carnevale et al. (5,471,626).

10. As to new claims 44, Buchholz set indicator bit if the contents of any of the plurality of registers has been updated (see fig.1 and fig.3, the set of vector registers in the vector processing unit of figure 1, see col.2, Brief Description of Drawings, Col.6, lines 7-36, there are indicator bits or vector change bits (VCH) that indicate when a vector register pair has been loaded or modified (updated). AS to the single bit, Buchholz was also applicable for single bit.

11. As to the new claim 45, Buchholz also did not transferring the contents of any of the plurality of registers to a memory his indicator bit has not been updated, otherwise transferring the contents of all of the plurality of registers to the memory (see

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abstract and col. 8, lines 16-54, the registers are saved on a program or context switch, see the transfer on the condition of indicator bit VCH col.5, lines 45-col.6, lines 67, col.6, lines 1-45, see also fig.5b and the abstract that if the contents of a register (VR or vector register) have not been changed (VCH = 0) the register is not saved to memory).

12. As to the newly amended feature in claim 1, it does not change the scope of the claim. Although the language of "in a processor" has been added, it does not recite the details of the processor.

13. As to the newly amended feature in claim, the "first portion of the register could be any bit or any bit position in a register,. Therefore, the newly amended feature does not affect the original scope.

14. As to newly amended claims 19, Buchholz also disclosed a memory and an interface between the memory and said processor. (figure 1, see the interface from the storage (20) and the rest of the processor.). Buchholz also did not transfer the content of register on indicator bit (see the transfer on the condition of indicator bit VCH col.5, lines 45-col.6, lines 67, col.6, lines 1-45). See also fig.5b and the abstract that if the contents of a register (VR or vector register) have not been changed (VCH = 0) the register is not saved to memory.

15. As to newly amend claim 24, Buchholz also disclosed storage of instructions that enabled the processor to save the register contents to memory on a context

change if the indicator bit set (see abstract and column 8, lines 16-54 for registers saved on a program or context switch state).

16. Claims 34, 37, 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buchholz et al. (4,740,893) in view of Carnevale et al. (5,471,626) as applied to claims 1, 7, 13, and further in view of Russel (6,751,737) .

17. Claims 35,42,43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buchholz (4,740,893) in view of Carnevale et al. (5,471,626) as applied to claims 1,3,19 above, and further in view of Dynarski et al. (6,628,671).

18. The rejections are maintained and incorporated by reference the last Office action on 09/27/05.

19. The response filed on 12/27/05 by applicant has been fully considered but it is not persuasive.

20. In the remarks, applicant argued that :

a) if control field has its value updated the corresponding bit of a map field 126 does not change.

21. As to a) above, Carnevale taught 126 was used for indicating the presence of a control field (another portion in the register). The presence or non-presence of the control field was itself an update or a change. For example, if the control field was changing from non-present to present state , the map field 126 would reflect that

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change , or "update" that change. No further format or specific type the update can be found in the claim, nor in the specification. Therefore, the language "update" is given a broadest interpretation. Applicant taught in the disclosure the modification of register (page 4). However, the modification could be read as the presence or non –presence of the register.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan Pan whose telephone number is 703 305 9696, or the new number 571 272 4172. The examiner can normally be reached on M-F from 8:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chan, can be reached on 703 305 9712, or the new number 571 272 4162. The fax phone number for the organization where this application or proceeding is assigned is 703 306 5404.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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21 Century Strategic Plan



DANIEL H. PAN
PRIMARY EXAMINER
GROUP